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(54) Abstract Title: Fitting adapted for holding a support member on an upright wall

(57) A fitting 100 includes a tubular base 20 and an elongated holding member 40. The base 20 includes a connecting rail 25 having an outer surface formed with an indentation 253, and an axially extending central hole 24. A first bolt member 30 extends through the central hole 24 to threadedly engage the upright wall so as to fix the base 20 on the wall. The holding member 40 has a rear end surface 42 formed with a blind rail hole 41, and a threaded hole 45 that is formed transversely through a wall of the holding member 40 and that is in communication with the rail hole 41. A second bolt member 50 engages threadedly the threaded hole 45 in the holding member 40, and has an inner end 51 that presses against the connecting rail 25 and that is disposed within the indentation 253 of the connecting rail 25 to thereby secure the holding member 40 on the connecting rail 25.

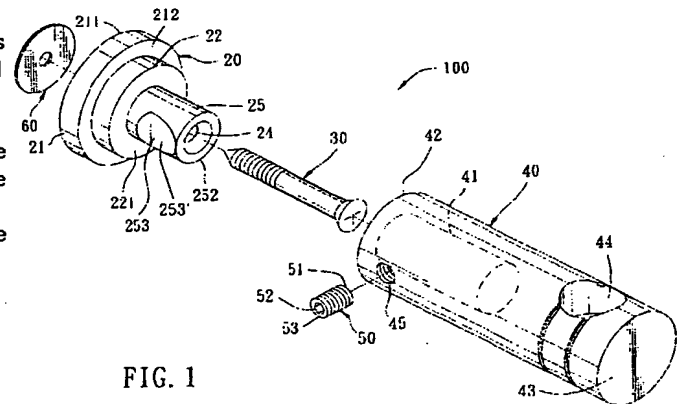


FIG. 1



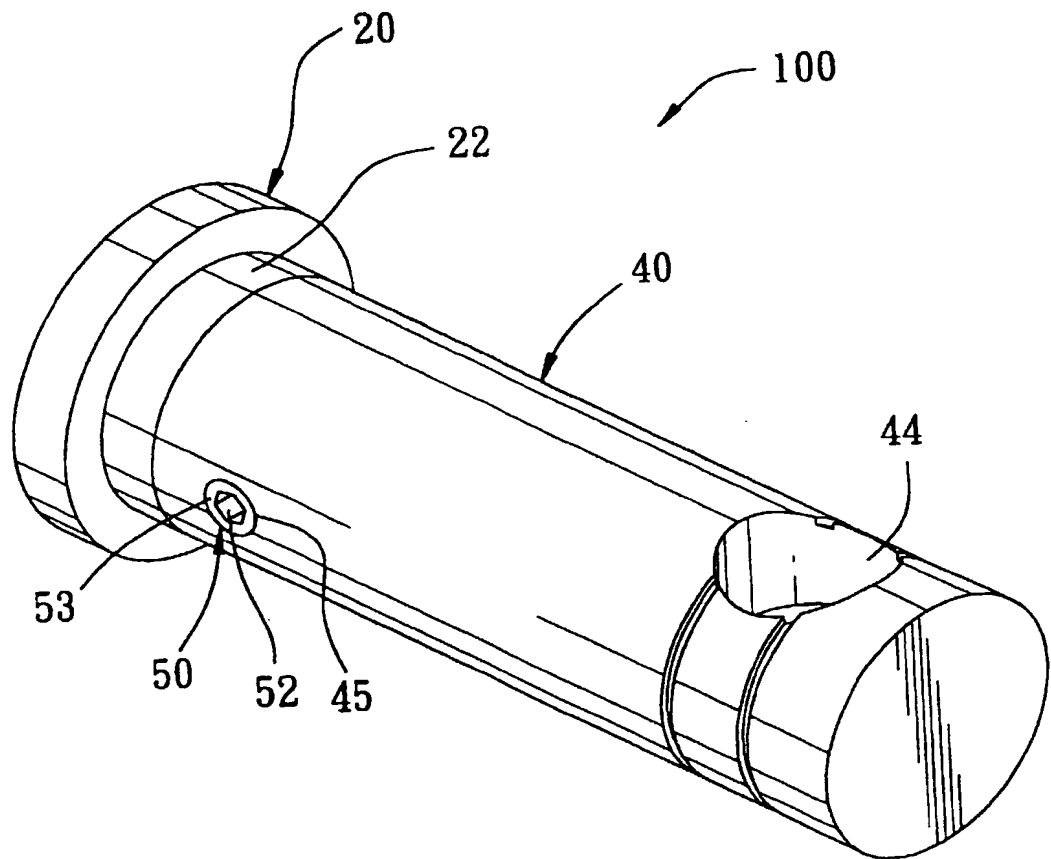


FIG. 2

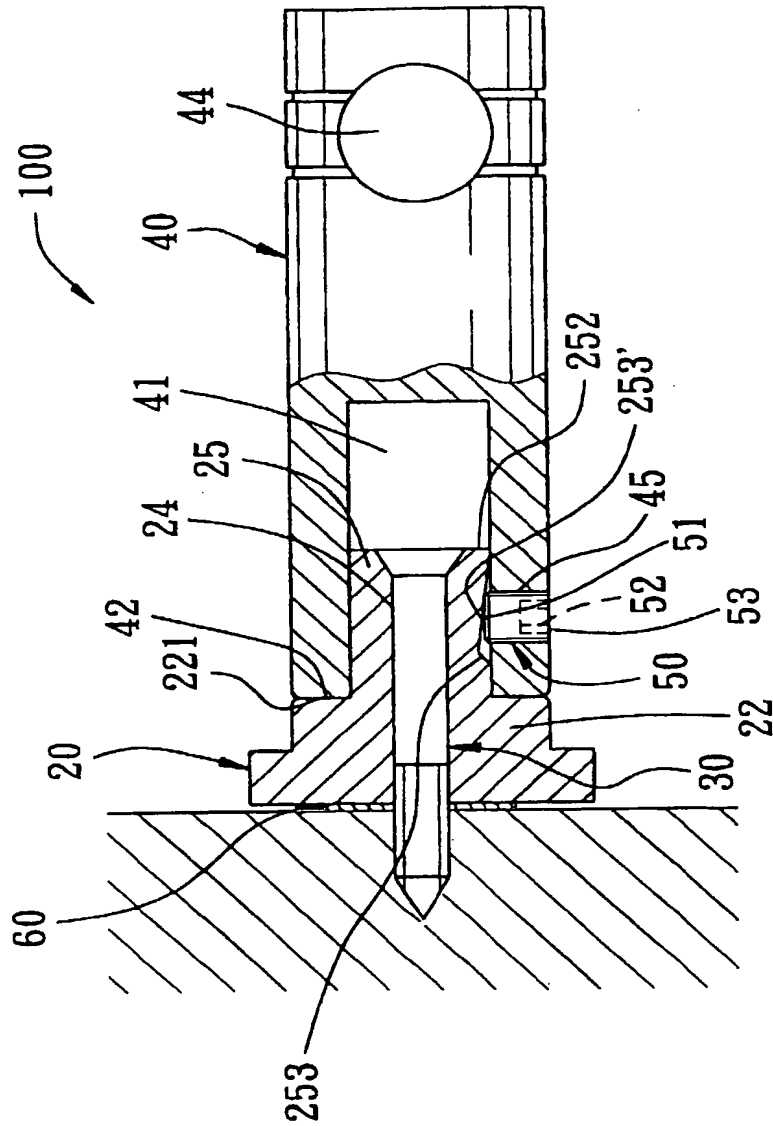


FIG. 3

**FITTING ADAPTED FOR HOLDING A SUPPORT MEMBER  
ON AN UPRIGHT WALL**

The invention relates to a fitting, more particularly to a fitting adapted for holding a support member, such as a transverse rod or a holding ring, on an upright wall.

A conventional fitting includes a positioning plate mounted fixedly on an upright wall by a pair of first and second fastening members (e.g., bolts), a faceplate fastened to the positioning plate by a third fastening member, and a holding member fastened to the faceplate by a fourth fastening member.

One of the drawbacks of the conventional fitting resides in that it requires too many fastening members. Furthermore, at least two fastening members are needed to fix the positioning plate on the upright wall.

Therefore, the main object of the present invention is to provide a fitting that is capable of overcoming the aforementioned drawbacks of the prior art.

According to this invention, a fitting includes a tubular base, a first bolt member, an elongated holding member, and a second bolt member. The tubular base includes a positioning plate, a connecting rail, and an axially extending central hole. The positioning plate has a rear end surface adapted to abut against the upright wall, and a front end surface. The connecting rail protrudes integrally and frontwardly from the front end

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surface of the positioning plate, and has an annular outer surface that is formed with an indentation. The axially extending central hole is formed through the positioning plate and the connecting rail. The first  
5 bolt member extends through the central hole to threadedly engage the upright wall so as to fix the base on the upright wall. The elongated holding member has a rear end surface formed with a blind rail hole for receiving the connecting rail therein, a holding hole  
10 that extends transversely through the holding member, and a threaded hole that is proximate to the rear end surface and that extends transversely through a wall of the holding member. The threaded hole is in communication with the rail hole. The second bolt member  
15 engages threadedly the threaded hole in the holding member, and has an inner end that presses against the connecting rail and that is disposed within the indentation of the connecting rail to thereby secure the holding member on the connecting rail.

20 Other features and advantages of the present invention will become apparent in the following detailed description of the preferred embodiment with reference to the accompanying drawings, of which:

Figure 1 is an exploded perspective view of the  
25 preferred embodiment of a fitting according to the present invention;

Figure 2 is an assembled perspective view of the

preferred embodiment; and

Figure 3 is a partly sectional view showing the preferred embodiment when mounted on a wall.

Referring to Figures 1 to 3, the preferred embodiment of a fitting 100 according to the present invention is shown to include a tubular base 20, a first bolt member 30, an elongated holding member 40, a second bolt member 50, and an anti-slip washer 60.

The tubular base 20 includes a positioning plate 21, a connecting rail 25, and an axially extending central hole 24. The positioning plate 21 has a front end surface 212 and a rear end surface 211 adapted to abut against the upright wall, and is formed with a decorative plate 22 that protrudes integrally and frontwardly from the front end surface 212 of the positioning plate 21. The decorative plate 22 has a front end surface 221, from which the connecting rail 25 protrudes integrally and frontwardly. The connecting rail 25 has an annular outer surface that is formed with an indentation 253, and a rear end 252. The connecting rail 25 is formed with an inclined surface 253' in the indentation 253. The axially extending central hole 24 is formed through the positioning plate 21 and the connecting rail 25.

The first bolt member 30 extends through the central hole 24 to threadedly engage the upright wall so as to fix the base 20 on the upright wall.

The elongated holding member 40 has a rear end surface

42 formed with a blind rail hole 41 for receiving the connecting rail 25 therein, a front end surface 43 opposite to the rear end surface 42, a holding hole 44 that is proximate to the front end surface 43 and that extends transversely through the holding member 40, and a threaded hole 45 that is proximate to the rear end surface 42, that extends transversely through a wall of the holding member 40, and that is in communication with the rail hole 41. The rear end surface 42 of the holding member 40 abuts against the front end surface 221 of the decorative plate 22. The holding hole 44 is used to retain a support member (not shown), such as a transverse rod or a holding ring, on the fitting 100.

The second bolt member 50 engages threadedly the threaded hole 45 in the holding member 40, and includes an inner end 51 that presses against the connecting rail 25 and that is disposed within the indentation 253 in the connecting rail 25, and an outer end 53 formed with a hexagonal cross-sectioned hole 52.

The anti-slip washer 60 is clamped between the upright wall and the rear end surface 211 of the positioning plate 21.

Referring to Figure 3, the base 20 is threadedly connected to the wall by passing the first bolt member 30 through the central hole 24 and the anti-slip washer 60, thereby securing the base 20 on the wall. The holding member 40 is then brought to be sleeved on the base 20



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by inserting the connecting rail 25 of the base 20 into the rail hole 41 in the holding member 40 until the rear end surface 42 of the holding member 40 abuts against the front end surface 221 of the decorative plate 22. Thereafter, the second bolt member 50 is threadedly engaged into the threaded hole 45 in the holding member 40 by using a hexagonal wrench (not shown) until the inner end 51 of the second bolt member 50 presses against the inclined surface 253' of the connecting rail 25, thereby securing the holding member 40 on the connecting rail 25 of the base 20.

The advantages of the fitting 100 of the present invention can be summarized as follows:

The holding member 40 can be directly fastened to the base 20 using only one bolt member 50. Another bolt member 30 is used to fix the base 20 on the upright wall. As such, only two fastening members 30, 50 are required to fix the fitting 100 of the present invention on the upright wall, thereby making the fitting 100 easy to install and convenient to use. Furthermore, different moulds of the base 20 and the holding member 40 can be used to enhance the outer appearance of the fitting 100.

**CLAIMS:**

1. A fitting adapted for holding a support member on an upright wall, characterized by:

a tubular base including

5 a positioning plate having a rear end surface adapted to abut against the upright wall, and a front end surface,

a connecting rail protruding integrally and frontwardly from said front end surface of said positioning plate and having an annular outer surface  
10 that is formed with an indentation, and

an axially extending central hole formed through said positioning plate and said connecting rail;

a first bolt member extending through said central  
15 hole to threadedly engage the upright wall so as to fix said base on the upright wall;

an elongated holding member having a rear end surface formed with a blind rail hole for receiving said connecting rail therein, a holding hole that extends  
20 transversely through said holding member, and a threaded hole that is proximate to said rear end surface and that extends transversely through a wall of said holding member, said threaded hole being in communication with said rail hole; and

25 a second bolt member engaging threadedly said threaded hole in said holding member and having an inner end that presses against said connecting rail and that

is disposed within said indentation of said connecting rail to thereby secure said holding member on said connecting rail.

5 2. The fitting as claimed in Claim 1, characterized in that said positioning plate of said base is further formed with a decorative plate, said decorative plate protruding integrally and frontwardly from said front end surface of said positioning plate and having a front end surface, from which said connecting rail protrudes  
10 integrally and frontwardly, said rear end surface of said holding member abutting against said front end surface of said decorative plate.

3. The fitting as claimed in Claim 1, further characterized by an anti-slip washer that is clamped  
15 between the upright wall and said rear end surface of said positioning plate.

4. The fitting as claimed in Claim 1, characterized in that said connecting rail is formed with an inclined surface that is disposed in said indentation, said inner  
20 end of said second bolt member pressing against said inclined surface.

5. The fitting substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

**Amendments to the claims have been filed as follows**

1. A fitting adapted to hold a support member on  
an upright wall, characterized by:

a tubular base including

5 a positioning plate having a rear end surface  
adapted to abut against the upright wall, and a front  
end surface,

a connecting rail protruding integrally and  
frontwardly from said front end surface of said  
10 positioning plate and having an annular outer surface  
that is formed with an indentation, and

an axially extending central hole formed through  
said positioning plate and said connecting rail;

a first bolt member extending through said central  
15 hole to threadedly engage the upright wall so as to fix  
said base on the upright wall;

an elongated holding member having a rear end surface  
formed with a blind rail hole for receiving said  
connecting rail therein, a holding hole that extends  
20 transversely through said holding member, and a threaded  
hole that is proximate to said rear end surface and that  
extends transversely through a wall of said holding  
member, said threaded hole being in communication with  
said rail hole; and

25 a second bolt member engaging threadedly said  
threaded hole in said holding member and having an inner  
end that presses against said connecting rail and that

is disposed within said indentation of said connecting rail to thereby secure said holding member on said connecting rail.

5 2. The fitting as claimed in Claim 1, characterized in that said positioning plate of said base is further formed with a decorative plate, said decorative plate protruding integrally and frontwardly from said front end surface of said positioning plate and having a front end surface, from which said connecting rail protrudes  
10 integrally and frontwardly, said rear end surface of said holding member abutting against said front end surface of said decorative plate.

3. The fitting as claimed in Claim 1, further characterized by an anti-slip washer that is clamped  
15 between the upright wall and said rear end surface of said positioning plate.

4. The fitting as claimed in Claim 1, characterized in that said connecting rail is formed with an inclined surface that is disposed in said indentation, said inner  
20 end of said second bolt member pressing against said inclined surface.

5. The fitting substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.



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Application No: GB 0211946.9  
Claims searched: 1 - 5

Examiner: Peter Macey  
Date of search: 14 August 2002

## Patents Act 1977 Search Report under Section 17

### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): F2M (MB4, MC1)

Int Cl (Ed.7): E04F 11/18, F16B 7/04, 7/18

Other: Online: WPI, EPODOC, JAPIO

### Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
A	GB 2145751 A (GFP ENGINEERING) see figure 1	-

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.

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